Models Used in Smoke Management
(PFIRS)

Suraj Ahuja

Smoke Management Session

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Model Name

PFIRS -- Prescribed Fire Information Reporting System

Type of Model

❑ **PFIRS is a web-enabled data base for planned fire events**

❑ **For Daily Fire Activity Tracking for each of CA APCD**

❑ **Can estimate fuel loading, fuel consumption & emissions**

Developed By

California Air Resources Board, US
Forest Service, other federal
Agencies and state fire agencies

Contact Information

Jason Branz at California Air Resources Board,

"Branz, Jason@ARB"
jbranz@arb.ca.gov, (916-445-5271)

Model Description
What, in brief, does the model do? What application(s) is the model designed for?

➢Allows burners in CA to access the model and input burn project information. Regulators access the information and issue the permit.

➢Serves as an interface between regulators, burners and individuals conducting PBs in CA.

Model Description
What, in brief, does the model do? What application(s) is the model designed for?

➢Facilitates communications by providing access to databases containing information on burn projects, burn approvals and emissions at a county, air basin or statewide level.

➢Intended as a planning tool for daily smoke mgt coordination.

➢Assists APCD in authorizing daily burns while protecting public from smoke impacts and AAQS being violated.

Key Points
Other details and features of the model

➢Model will link to WRAP's Fire Emission Tracking System (FETS) and CANSAC's Blue Sky Framework.

➢Blue Sky products will provide timely information for burners, regulators and the public for planning and decision making

➢Bordering Districts and interstate regulators will have a process to better manage the burn projects

Current Level of Use
Is the model in use currently? Is use increasing? Decreasing?Are there regional consideration?

➢Model was fully launched on March 1, 2010.

➢No regulations requires that that PFIRS be used by burners or regulators.

➢Most of the stakeholders have worked together to get the model operating. Hopefully all burners and regulators will be using it? Its use will increase with time.

➢Past coordination meetings had been referring PFIRS as a upcoming tool to resolve "Smoke Intrusion Issues"

Future Commitment
Is there any current development work ongoing? Is there stable funding? Is there an interested and active user community

➢ With the CARB adopting it as a smoke mgt tool and taking the lead in the development of PFIRS and housing the server at the office to deal with Title 17 requirements, it will stay funded in future.

➢ Usefulness of the tool to the burners and regulators will keep it going.

➢ Will be linked to FETS and Blue Sky that will increase its usefulness and future stability

Applicability to FS Smoke Modeling Needs
What key FS applications would it work well for, or not work as well for?

➢As use by the burners and regulators increase and link with Blue Sky and FETS is completed the newer versions of PFIRS will be able to respond to applications like fire activity tracking, fuel loading estimation, consumption estimation and emission estimates, emission inventory, smoke plume and PM2.5 conc projection upto 7 days.

➢It can be used as a tool for future strategies for application to visibility improvement, GHGs emission reduction and climate change impact assessment